



## **Fundamentals of the Polymers Business**

### **Module 1:**

1 hour	Understanding Petrochemicals and Polymers <ul style="list-style-type: none"><li>• What are petrochemicals and where do they come from</li><li>• An overview of polymer chemistry explaining what are monomers/polymers, thermosets vs thermoplastics</li></ul>
30 minutes	Polymer feedstock Part 1 <ul style="list-style-type: none"><li>• What are the key polymer feedstocks</li><li>• The main routes to making ethylene, propylene and butadiene and their value chains explained</li></ul>
15 minutes	Break
1 hour	Polymer feedstock Part 2 <ul style="list-style-type: none"><li>• The other raw materials – benzene and xylenes</li><li>• The main routes to making benzene, toluene and xylenes and their value chains explained</li></ul>
15 minutes	Interactive discussion



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### Module 2:

1 hour	<p>Polyethylene (PE)</p> <ul style="list-style-type: none"><li>• Brief history and early days of development</li><li>• Different types of polyethylene and key applications</li><li>• LDPE, LLDPE and HDPE – properties, production process, technologies and grades/applications</li><li>• Latest developments</li><li>• Overview of global and regional demand/supply, major producers</li><li>• Key end-use segments</li><li>• Major demand drivers</li></ul>
15 minutes	Break
1 hour	<p>Polypropylene (PP)</p> <ul style="list-style-type: none"><li>• Brief history and early days of development</li><li>• Production process, catalysts, technologies, types of PP, grades/applications</li><li>• Latest product developments</li><li>• Overview of global and regional demand/supply, major producers</li><li>• Key end-use segments</li><li>• Major demand drivers</li></ul>
15 minutes	Interactive discussion
30 minutes	<p>Plastic processing fundamentals</p> <ul style="list-style-type: none"><li>• The different polymer properties (MFI, etc) and their role in processing</li><li>• Introduction to major processing techniques and their applications (injection moulding, extrusion, blow moulding, thermoforming)</li><li>• Role of additives</li></ul>



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### **Module 3:**

30 minutes	Plastic processing fundamentals part 2
45 minutes	<p>Polyethylene Terephthalate (PET)</p> <ul style="list-style-type: none"><li>• PET and polyester</li><li>• Early days of development</li><li>• Production process</li><li>• Grades and applications</li><li>• Overview of global and regional demand/supply, major producers</li><li>• Key end-use segments and demand drivers</li><li>• Recycling and its importance in the PET business</li></ul>
15 minutes	Break
45 minutes	<p>Polyvinyl Chloride (PVC)</p> <ul style="list-style-type: none"><li>• Brief history and early days of development</li><li>• Production process - ethylene and carbide routes to making PVC</li><li>• Different grades of PVC and their applications</li><li>• Overview of global and regional demand/supply, major producers</li><li>• Key end-use segments and demand drivers</li></ul>
45 minutes	<p>Styrenics</p> <ul style="list-style-type: none"><li>• Brief history and early days of development</li><li>• Production process and technologies</li><li>• Different grades and their applications</li><li>• Overview of global and regional demand/supply, major producers</li><li>• Key end-use segments and demand drivers</li><li>• Major shifts in the Styrenics business</li></ul>



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### **Module 4:**

1 hour	<p>Pricing and markets</p> <ul style="list-style-type: none"><li>• Key price drivers</li><li>• Cost structure, influence of feedstock costs and margin analysis</li><li>• How pricing is assessed</li><li>• Differences in markets and price mechanisms across Asia, Europe and Americas</li><li>• China and its influence on markets</li><li>• The role of futures markets in China and its influence on the physical market</li></ul>
15 minutes	<p>Break</p>
1 hour & 15 mins.	<p>Industry trends and company strategies</p> <ul style="list-style-type: none"><li>• Key business drivers</li><li>• Major shifts in company strategies</li><li>• Investment trends and changes to trade flows</li><li>• Growth opportunities and challenges</li><li>• Environmental issues</li><li>• The impact of Covid-19 on the polymers market</li><li>• Examining the effects of Ukraine/Russia conflict</li></ul>
15 minutes	<p>Interactive discussion</p>
15 minutes	<p>Summary and conclusion</p>